

Glossary of Terms

303(d) List	Under Section 303(d) of the 1972 Clean Water Act, states, territories, and authorized tribes are required to develop a list of water quality limited segments. Waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.
Abundance	The number of fish at various life stages or at a specific time, generally measured as population size. A population should be large enough to survive normal environmental variation or human caused impacts.
Adaptive Management	A decision making tool to help measure progress and success, and allow strategy to be adjusted accordingly. New data, information about a project's successes and failures, and flexibility is incorporated into a long-term management program.
Alevin	The larval stage of salmonid development that occurs after the egg has hatched, when the juvenile fish lives in the voids in the streambed gravel for a period of time up to several months until its yolk sac is absorbed.
Anadromous	Species that hatch in freshwater, mature in saltwater, and return to freshwater to reproduce.
Bank Armoring, Bank Hardening	The artificial application of various materials to protect stream-banks from erosion. Also, the formation of an erosion-resistant layer of relatively large particles on the surface of a streambank.
Benthic	Pertaining to the bottom (of estuaries, rivers, streams, and lakes).
Best Management Practices	A method, activity or procedure for reducing the amount of pollution entering a water body and/or stormwater runoff.
Beverton-Holt curve	A tool used to show the relationship between the numbers of progeny (fish in the next generation) that are produced by current spawning fish. Current, future, and historical conditions are represented by separate curves.

Bioengineering	Combining structural, biological, and ecological concepts to construct living structures for erosion, sediment, of flood control.
Candidate Species	A species the U.S. Fish and Wildlife Service has determined is endangered or threatened, but is not officially listed in the Endangered Species Act. The U.S. Fish and Wildlife Service encourages their conservation and protection since they will most likely obtain protected status in the future.
Char	A sub-group of the salmon family that includes bull trout. Distinguished from trout and salmon by the absence of teeth in the roof of the mouth, presence of light colored spots on a dark background (trout and salmon have dark spots on a lighter background), absence of spots on the dorsal fin, small scales, and differences in the structure of their skeleton.
Coastal-Puget Sound Distinct Population Segment	Management unit that includes the Puget Sound Distinct Population Segment of bull trout. The overall bull trout recovery implementation strategy for the Coastal-Puget Sound Distinct Population Segment is to integrate with ongoing tribal, state, local, and federal management and partnership efforts at the watershed and regional levels.
Co-Managers	The State of Washington and the Washington State Treaty Tribes co-manage the salmon harvest and operate most salmon hatcheries.
Diversity	The differences in genetic and behavioral traits, including life histories (e.g., run timing, etc.), sizes, and other characteristics. Diversity helps protect populations from short-term environmental change, and provides a basis for survival during long-term environmental change.
Ecological Analysis for Salmonid Conservation (EASC)	The compilation and analysis of new and existing ecological information about the Snohomish River basin that provides the scientific foundation for the Snohomish River Basin Salmon Conservation Plan.
Ecosystem Approach	An ecosystem approach takes into consideration the complex interactions between an organism and the biological and physical environment. For salmon recovery, it means focusing on

	restoration of the underlying watershed processes that create and sustain functioning wetlands, riparian forests, streams and rivers. An ecosystem approach benefits multiple species and is more likely to be successful and self-sustaining over the long term.
Edge Habitat	The slackwater margin along mainstem rivers (the area of mainstem rivers unaffected by currents) that serves as important rearing habitat for juvenile salmon.
EDT (Ecosystem Diagnosis and Treatment model)	A model for rating the quality, quantity, and diversity of habitat along a stream relative to the needs of a specific species such as coho or Chinook salmon.
Equilibrium Abundance	The point where spawning salmon have maximized their use of available habitat and are simply replacing themselves in the next generation.
ESA (United States Endangered Species Act of 1973)	A Federal law to protect troubled species from extinction. Species are listed as either threatened or endangered. In May 1999, NOAA Fisheries listed Chinook salmon as threatened under the ESA. In October 1999 the U.S. Fish and Wildlife Service added Puget Sound bull trout char to the list as threatened. Coho are a candidate species.
Escapement	The number of fish returning to spawn in a given year.
Estuary	The region where fresh water from the Snohomish River basin mixes with the salt water of Puget Sound. The estuary is a highly productive and diverse environment and provides unique and critical habitat for Chinook and other salmon for rearing, migration, and transitioning between fresh and saltwater.
ESU (Evolutionarily Significant Unit)	A population, or group of populations, of salmon that is substantially, reproductively isolated from other populations and contributes to the ecological and genetic diversity of the biological species. This term is used by NOAA Fisheries in its status determinations for anadromous salmon populations.
Floodplain	A low, relatively flat area that is periodically flooded by the lateral overflow of a stream or river.
Floodplain Connectivity	Connection of river to floodplain features such as riparian forests, side channels, sloughs and wetlands.

Fluvial	Pertaining to streams or rivers.
Fry	Young salmonids that have emerged from the gravel and are up to one month of age.
Focus Reach	A specified length of stream or river used for analysis. To eliminate confusion, focus reaches in this analysis are consistent with EDT analyses.
Forum	(see Snohomish Basin Salmon Recovery Forum)
GIS	Geographic Information System
Headwaters	The source or upper part of a river. Headwaters in the Snohomish River basin are primarily forestlands.
Index Reach	A reach of a river where spawning has been regularly monitored over a certain period of time. Data from index reaches can be extrapolated to provide an estimate for spawning across a larger system.
Interlocal Agreement	A type of formal agreement between two or more governmental agencies establishing cost-shares and responsibilities for cooperative projects and ongoing service agreements.
Large Woody Debris	Logs and rootwads used for simulating natural conditions in habitat and stream restoration projects.
Mainstem	The main channel of the river.
NOAA Fisheries	A division of the United States National Oceanic and Atmospheric Administration (NOAA) that administers NOAA's programs supporting the domestic and international conservation and management of living marine resources and anadromous species.
NTAA	Snohomish River Basin Chinook Salmon Near Term Action Agenda.
Off-Channel Habitat	Any relatively calm portion of a stream outside of the main flow such as a side channel, slough, dead-end channel, or wetland.
Out-migrants	Smolts, or salmon migrating out from rivers to Puget Sound.

Oxbow	A looping river bend or meander cut off from the main flow by a new channel. A crescent-shaped lake formed by the detachment of a river bend from the main channel.
Population	An independent population is a group of fish of the same species that spawns in a particular lake or stream (or portion thereof) at a particular season and which, to a substantial degree, does not interbreed with other fish from any other group spawning in a different place or in the same place at a different season (McElhany, et al., 2000)
Productivity	The growth rate, or a population's potential for increasing or maintaining its abundance over time. A population that consistently fails to reproduce itself is at risk of extinction.
Puget Sound Salmon Management Plan	Establishes the legal basis for salmon conservation and allocation. The co-managers develop assessments and model fishery impacts that become the basis for harvest management plans.
Reach	Any specified section of a stream's length.
Redd	Fish nests made in gravel (particularly by salmonids) consisting of a depression that is created and then covered after eggs are laid.
Redd Scour	The removal of the gravel that forms a redd by high water flows. Redd scour typically results in the removal and destruction of eggs buried in the redd.
Riprap	Large rocks, broken concrete or other structures used to stabilize streambanks and other slopes.
Salmonid	Any fish of the taxonomic family Salmonidae, including salmon, trout, char, whitefish, and grayling.
Shared Strategy	A voluntary cooperative regional effort to produce a salmon recovery plan that is viable, cost-effective, and endorsed by the people living and working in the individual watersheds that comprise the Puget Sound region.
SHIRAZ	A model that links the effects of habitat condition, hatchery stocks, and harvest management to salmon population responses through a dynamic life-cycle modeling approach.

Snohomish Basin Salmon Recovery Forum (Forum)

The group charged with developing a local salmon recovery response in coordination with regional efforts. Formerly called the Snohomish River Basin Work Group.

Snohomish River Basin

A 1,856 square mile watershed that drains from the Cascade Mountains to Puget Sound. The second largest watershed that drains into Puget Sound, it includes the Skykomish, Snoqualmie, and Snohomish Rivers, along with numerous tributaries.

Spatial Structure

How the abundance at any life stage is geographically distributed among habitats or potential habitats.

Sub-Adults

Immature fish that are not old enough to spawn that migrate back into freshwater rather than out to sea.

Sub-Basin Strategy Group

For planning purposes, the 63 sub-basins in the Snohomish River were sorted into 12 strategy groups to help organize data and recovery hypotheses.

Technical Recovery Team

A group of scientists that has been appointed by NOAA Fisheries to set recovery standards and measure recovery efforts for Puget Sound Chinook salmon.

Urban Growth Area

The area of a county, as designated in a County Comprehensive Plan, where most future urban growth and development is designated to occur.

USFS

United States Forest Service

USFWS (United States Fish and Wildlife Service)

Federal agency that regulates the development, protection, rearing, and stocking of wildlife resources and their habitats; protects migratory and game birds, fish and wildlife, endangered and threatened species; and preserves wetlands as natural habitats.

Viable Salmonid Populations

An independent population of any Pacific salmonid (genus *Oncorhynchus*) that has a negligible risk of extinction over a 100-year time frame. NOAA Fisheries uses the concept of a viable salmonid population in evaluating hatchery and harvest activities or other activities that directly affect populations, and in identifying de-listing goals. Viable Salmonid Population parameters include abundance, productivity, diversity, and spatial structure.

**WAC (Washington
Administrative Code)**

The codified regulations adopted by various Washington state agencies through the rule-making process. The WAC implements the Revised Code of Washington.

Watershed

The specific land area that drains into a river system or other body of water.

WDFW

Washington State Department of Fish and Wildlife

Wetlands

Transitional lands between aquatic and terrestrial systems where the water table is at or near the surface of the land. This area is covered by shallow water. To be classified as a wetland, an area must have one or more of the following three attributes: 1. The land supports plants, which are adapted to wet soil conditions. These plants are also known as hydrophytes. 2. The base land is predominantly undrained hydric soil. 3. The base is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of every year.

**WRIA (Water Resource
Inventory Area)**

A geographic area, defined by hydrologic boundaries on the basin and sub-basin scale, designated by the state as a way to describe administrative units for resource management. The state comprises 63 WRIsAs. Each WRIA typically includes a major river drainage, smaller tributaries, and adjacent nearshore areas.

**State Salmon Recovery
Act of 1998**

The Act authorizes and provides funding for lead entities to convene committees (such as the Forum) for the purpose of prioritizing salmon habitat restoration projects in Washington State. The Act was amended in 1999 to create the Salmon Recovery Funding Board, which awards funding to projects submitted by lead entities.

**Watershed Management
Act of 1998**

The Act provides a framework for local citizens, interest groups, and government organizations to collaboratively identify and solve water related issues in each of the 62 WRIsAs.